# Mo-Sai®

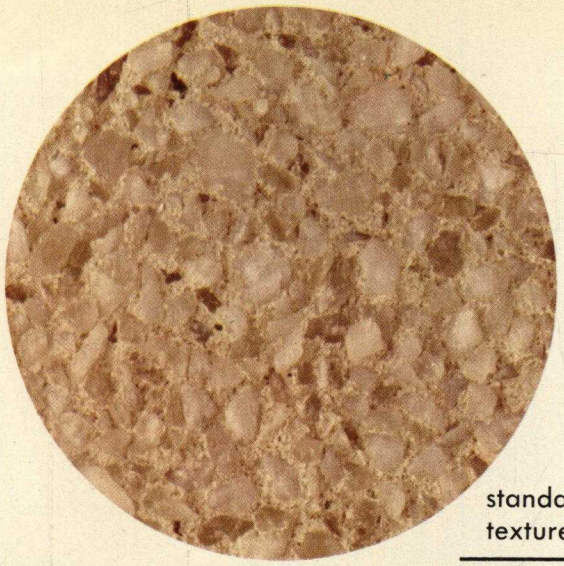
## precast facing

A. I. A. FILE NO. 4-K-1

1957

**Mo-Sai**
**Pre-cast Facing**

Mo-Sai is a refined type of thin reinforced architectural concrete facing with an exposed aggregate surface of mosaic character formed from crushed and graded granite, quartz, or vitreous bodies.



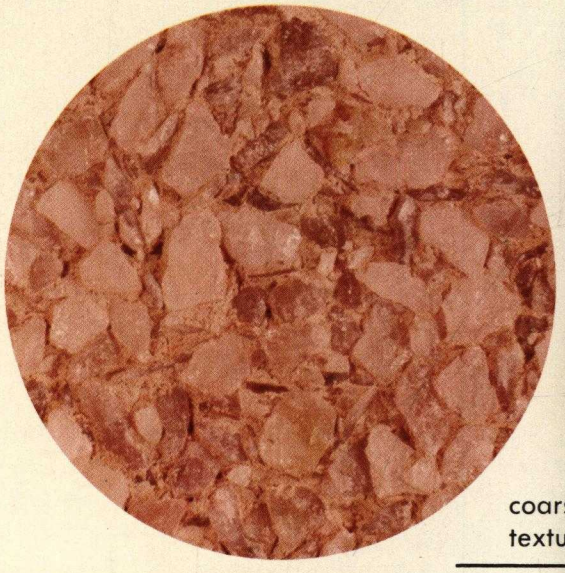
standard texture

# Color Range and Texture

Mo-Sai can be manufactured in any specified color, and in various textures. It provides a medium of expression to suit the widest architectural requirements.

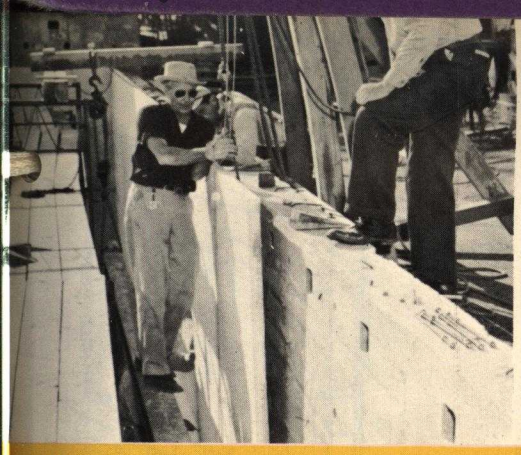
Ornaments, trade-marks, geometric designs and name panels, either raised or inlaid, may be cast in vivid, colorful vitrics, integral with the facing, and in any desired color.

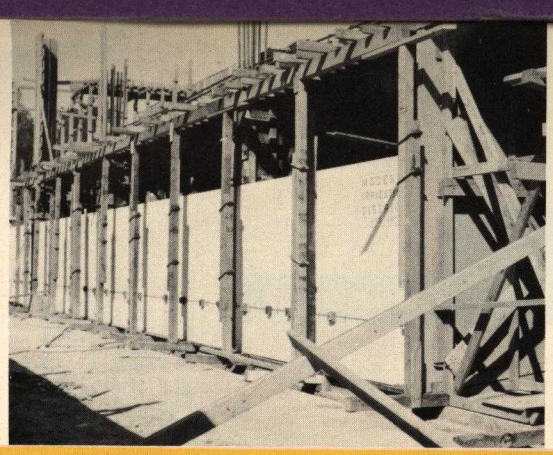
Mo-Sai Associates furnish actual samples of a specified color and texture prior to fabrication.

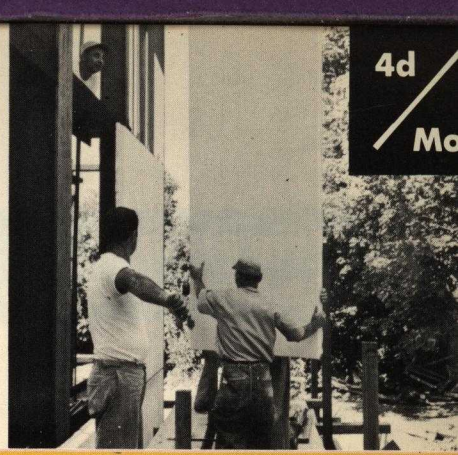


coarse texture

very coarse texture







## Facing

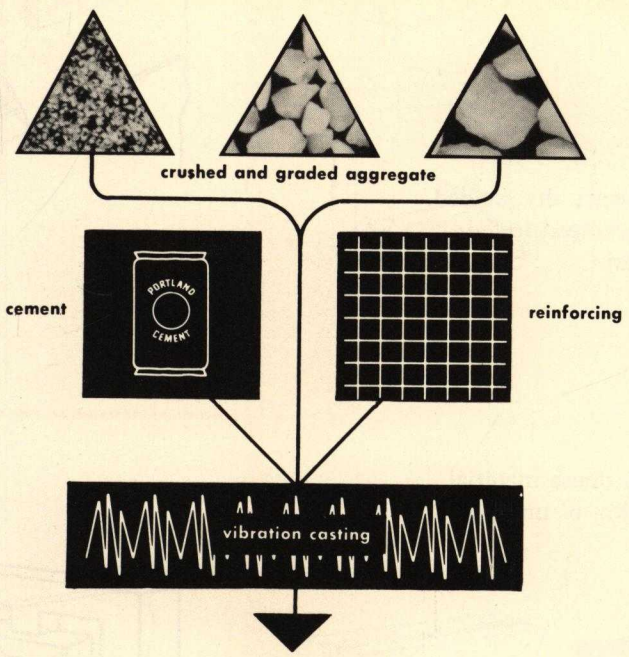
Existing or new construction may be faced with Mo-Sai by stone-masons with a minimum of preparation. A variety of wall anchors may be affixed to the integral anchors in the Mo-Sai unit, and, most important, Mo-Sai engineers are ready to suggest the best methods of anchoring in new or remodelled construction.

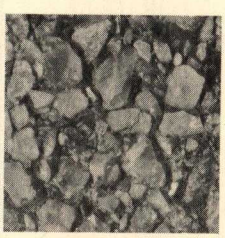
## Forming

In reinforced concrete construction, Mo-Sai Precast Facing, with its predetermined finish, replaces the exterior wood form. With Mo-Sai, the architect is assured of uniform surface finish and wall alignment before structural backup concrete is joined.

## Handling

From plant to positioning on the job, Mo-Sai units are easily transported by truck or rail. Integral anchors provide convenient loops for attaching lifting equipment. Since slabs are engineered for facing construction, they should be handled and stored vertically at all times.

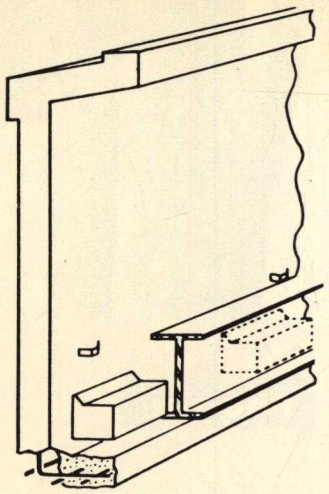


## Analysis of Mo-Sai

Predetermined formulas of sized aggregate are combined with cement in a low water-cement ratio, with coloring pigments added where desired. Casting is accomplished under high frequency vibration in rigid molds, and surface texture of specified quality is attained by techniques developed by Mo-Sai Associates. The finished surface exposes over 85% aggregate.

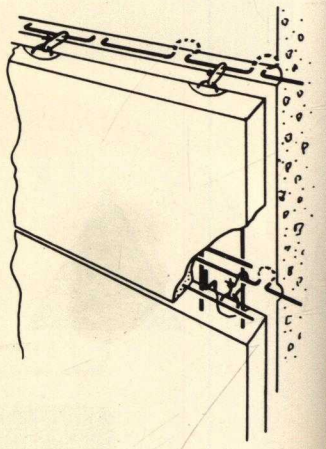
# Physical Characteristics:



## Dimensions

Standard Mo-Sai is two inches thick, with variation allowable to fit special conditions. Sizes from 20 to 60 square feet are the most economical to manufacture, handle and erect but larger units are permissible if thickness is increased according to steel reinforcement design requirements.

## Weight



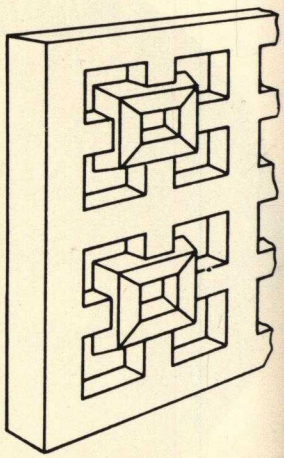
Mo-Sai in standard 2″ thickness is a comparatively lightweight facing material, weighing approximately 25 pounds per square foot.

## Strength

Mo-Sai pre-cast facing is reinforced with electrically welded, zinc coated, heavy rod mesh, and has a guaranteed tested compressive strength of not less than 7500 psi.

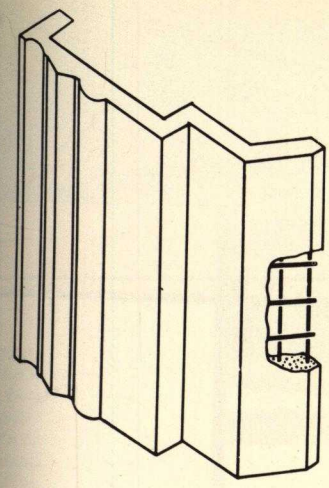
## Moisture resistance

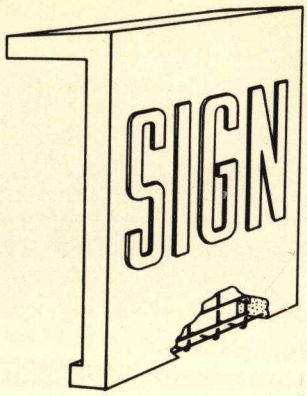
Finished Mo-Sai pre-cast units are of strong, dense material, highly resistant to moisture, with an absorption of under 6%.



## Expansion and Contraction

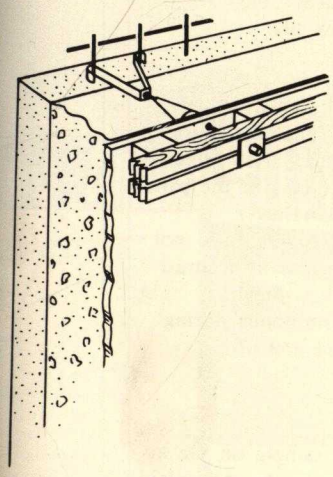
Less than .45 per 100 linear feet.

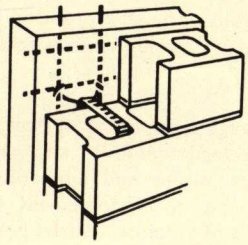


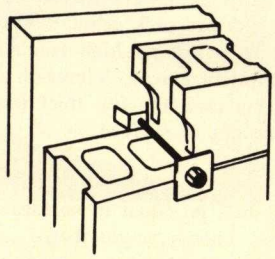



## Integral shapes

Mo-Sai may be shaped to any specific profile. Its flexibility of design reduces construction cost, improves appearance, and increases weather resistance. If desired, letters or ornaments may be cast integrally with the Mo-Sai facing.

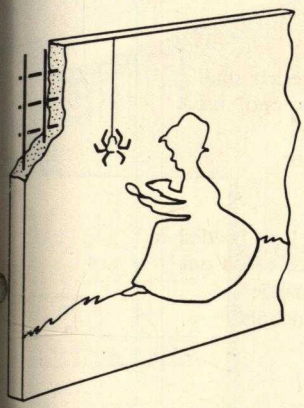


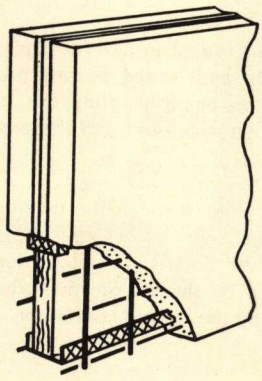




## Anchoring

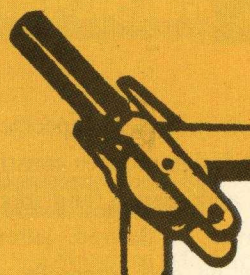
Experience with various anchoring methods has led to the adoption of two basic Mo-Sai anchors to which the various types of wall anchors can be attached. Where unusual problems exist, special anchors can be furnished.





## Special units

Mo-Sai is adaptable to many special uses. Fabrication techniques allow the introduction of specially shaped molds where needed; reinforcement adds to the stability of these units where grille work is required.



# SPECIFICATIONS

## manufacturer

**a**—All Mo-Sai as shown on the general plans shall be as manufactured by_____ **b**—Mo-Sai material shall be in strict accordance with these specifications regarding physical requirements and workmanship and in strict compliance with sample on file.

## manufacturing

**a**—All exposed aggregate panels shall have a built-up galvanized welded-steel reinforcement carefully calculated and engineered for all structural stresses, strains and temperature changes. All anchors shall be securely attached to reinforcement. **b**—The facing of the panels shall be manufactured of (granite, quartz, porcelain, vitreous) aggregate and white or grey Portland cement with a w/c ratio not exceeding 5 gallons per sack cement. They shall be cast in accurate molds designed to withstand high frequency vibration. Steel units to be accurately placed. Vibration shall be continuous during process of pouring until the full thickness is reached and all excess water brought to surface.

## finish

**a**—All Mo-Sai shall be equal in surface texture to sample on file at Architect's office, known as number_____. **b**—All inlaid color as called for on plans shall be (give color) and have sharp, clean lines. Inlay shall be (sunk or flush).

## physical qualities

All Mo-Sai shall have a minimum compressive strength of 7500 lbs. per sq. in. at 28 days of age and a maximum absorption of 6%.

## workmanship

All Mo-Sai shall be true to dimensions, in perfect plane, with no twists or bends, and have clean accurate arrises.

## handling

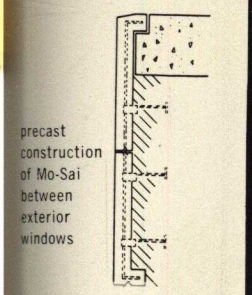
All Mo-Sai shall be handled in a vertical plane at all times. It shall be stacked vertically and leaned against proper supports until used. Any chipping, cracking or mishandling, etc., after Mo-Sai is delivered shall be the responsibility of the general contractor.

## setting

All setting shall be done through the medium of lead pellets bedded in the customary setting mortar, after which all joints shall be raked out to a depth of ¾". All pointings shall be done with an elastic compound furnished by the Mo-Sai manufacturer. All anchors shall be furnished by the setting contractor.

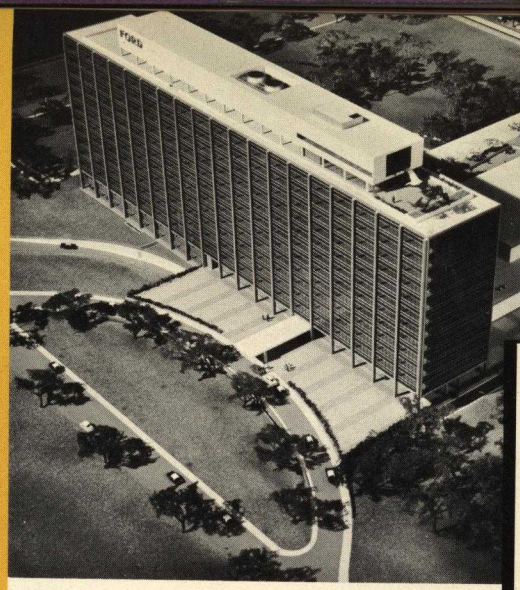
## cleaning

When ready for pointing, Mo-Sai slabs shall be cleaned with fibre brushes, soap and water, then rinsed with clear water preferably from a hose.

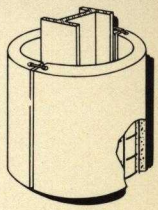


precast construction of Mo-Sai between exterior windows

Virginia Mutual Insurance Co., Richmond
architect: Ballou & Justice



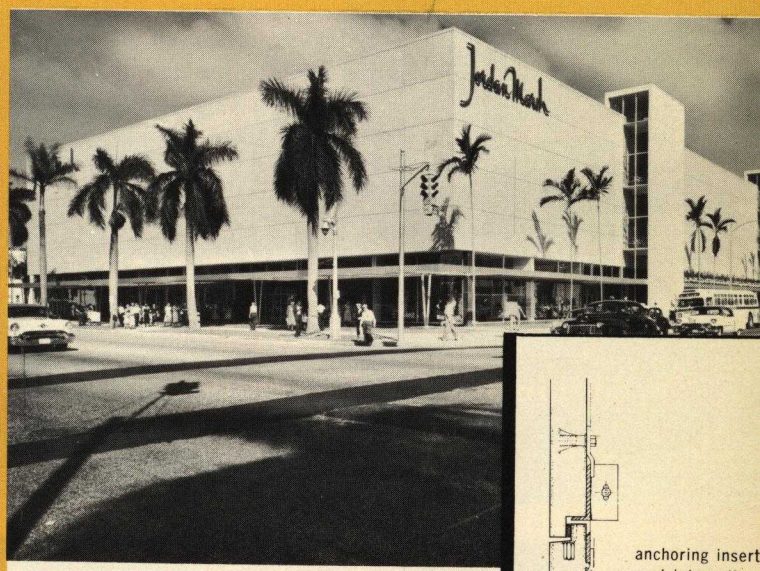
Ford Motor Co. Central Staff Ofc. Bldg., Dearborn
architect: Skidmore, Owings & Merrill



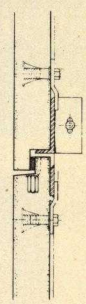
Mo-Sai wrapped around structural columns of penthouse

metal flashing reglet cast in Mo-Sai

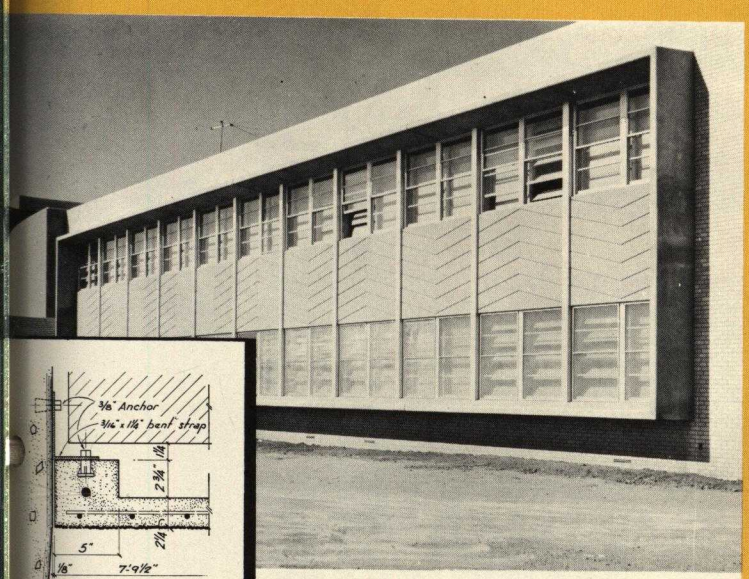
St. Louis Municipal Air Port, St. Louis
architect: Hellmuth, Yamasaki & Leinweber




Jordan Marsh Department Store, Miami
architect: Weed, Russell, Johnson Associates



anchoring insert cast integrally within panels

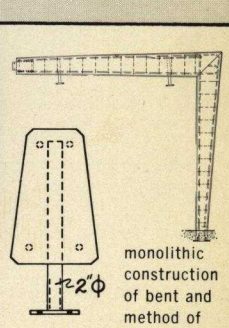





anchoring at vertical surround

Northwest Classen High School, Oklahoma City
architect: Hudgins, Thompson-Ball & Associates

May Co. Valley Department Store, Los Angeles
architect: Albert C. Martin and Associates




monolithic construction of bent and method of supporting canopy

## Mo-Sai Follow-Through Service

### Controlled fabrication

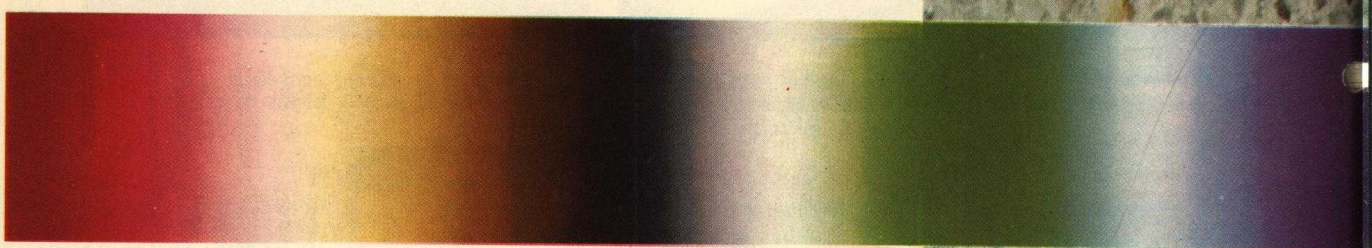
Mo-Sai manufacture is controlled from the quarry to the crushing and grading of aggregate in the Associate's own crushing mills. Only highest quality cement and tested color pigments are used in accurately mixed formulae, which assure consistency throughout the job. Reinforcement, correctly engineered, is properly positioned.

### Consultation service

Mo-Sai engineers welcome an opportunity to provide job planning assistance to architects, designers, and builders; to consult on the location and type of anchors, the location of precast holes for signs or wiring, and the incorporation of integral shapes.

### On-the-job repairs

Mo-Sai gives you on-the-job repairs. Any unit which is accidentally damaged in handling will be repaired by a Mo-Sai finisher on the job, using the same aggregate and formula as the original casting. This repair is guaranteed for the life of the slab.



*Mo-Sai Associates was founded in the year 1940 to standardize, improve and promote architectural panels under the one name.*

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| | | |
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| Massachusetts | Allston 34 | Cambridge Cement Stone Co. |
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